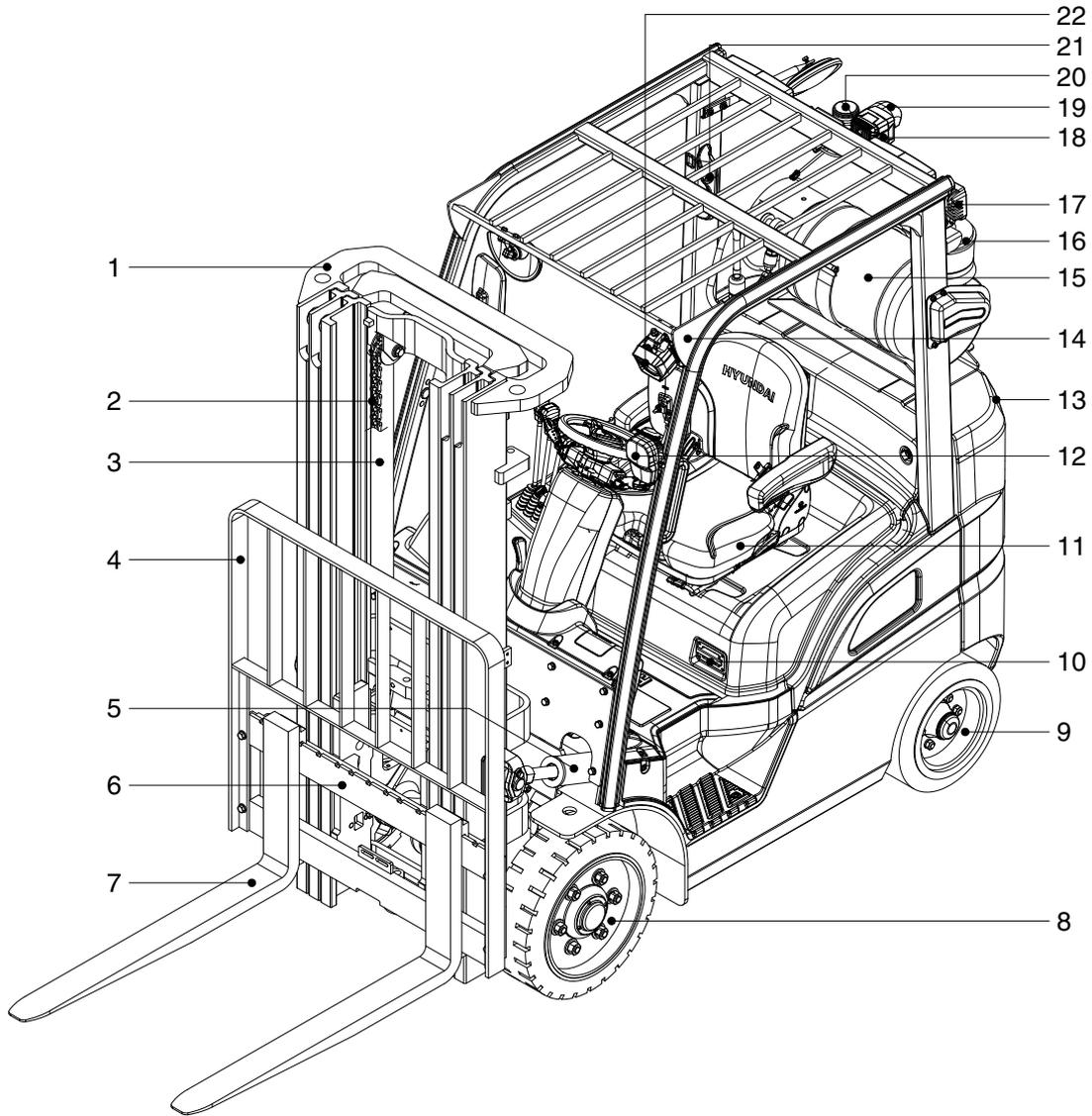


# 3. KNOW YOUR TRUCK

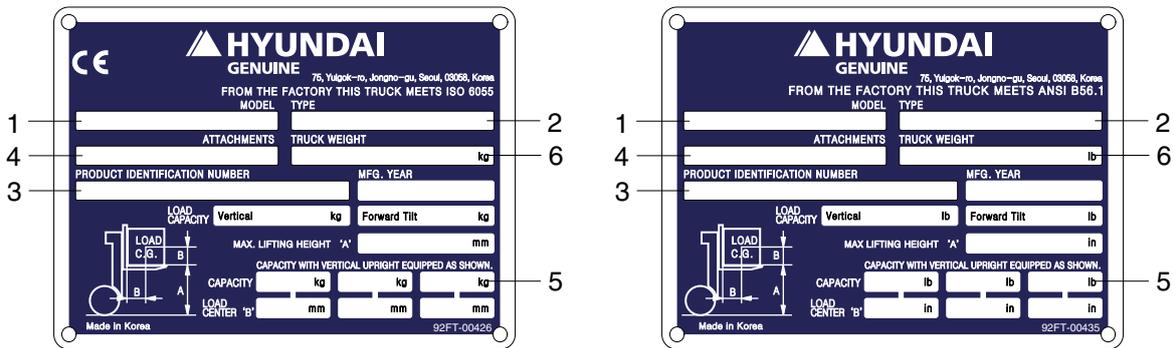
## 1. GENERAL LOCATIONS



25LC93KY01

- |                 |                              |                                |
|-----------------|------------------------------|--------------------------------|
| 1 Mast          | 9 Rear wheel                 | 17 Rear work lamp (opt)        |
| 2 Lift chain    | 10 Operator's seat           | 18 Rear blue spot (opt)        |
| 3 Lift cylinder | 11 Bonnet latch              | 19 Camera (opt)                |
| 4 Backrest      | 12 Head and turn signal lamp | 20 Beacon lamp (opt)           |
| 5 Tilt cylinder | 13 Counterweight             | 21 Rear handle with horn (opt) |
| 6 Carriage      | 14 Overhead guard            | 22 Front blue spot (opt)       |
| 7 Forks         | 15 LPG tank                  |                                |
| 8 Front wheel   | 16 Precleaner                |                                |

## 2. NAME PLATE



1) Truck model number or registered name

2) Truck type

The type is indicated a type of the truck such as diesel, LPG or battery.

3) Truck serial number

An identification number assigned to this particular truck and should be used when requesting information or ordering service parts for this truck from your authorized HYUNDAI dealer. The serial number is also stamped on the frame.

4) Attachment description (If any installed)

The user must see that the truck is marked to identify the attachment (s), including the weight of the truck/attachment combination and truck capacity with the attachment.

5) Capacity rating, load center, and lifting height data

Shows the maximum load capacity of this truck with relation to load centers and fork heights (See diagram on plate). Personal injury and damage to the truck can occur if these capacities are exceeded.

Do not exceed the maximum capacity specified.

6) Truck weight

The approximate weight of the truck without a load on the forks. This weight plus the weight of the load must be considered when operating on elevators, elevated floors, etc. to be sure they are safe.

**▲ Before modifications that affect the stability of safety systems are made written approval from HYUNDAI. Contact your authorized HYUNDAI dealer for a new nameplate showing the revised capacity.**

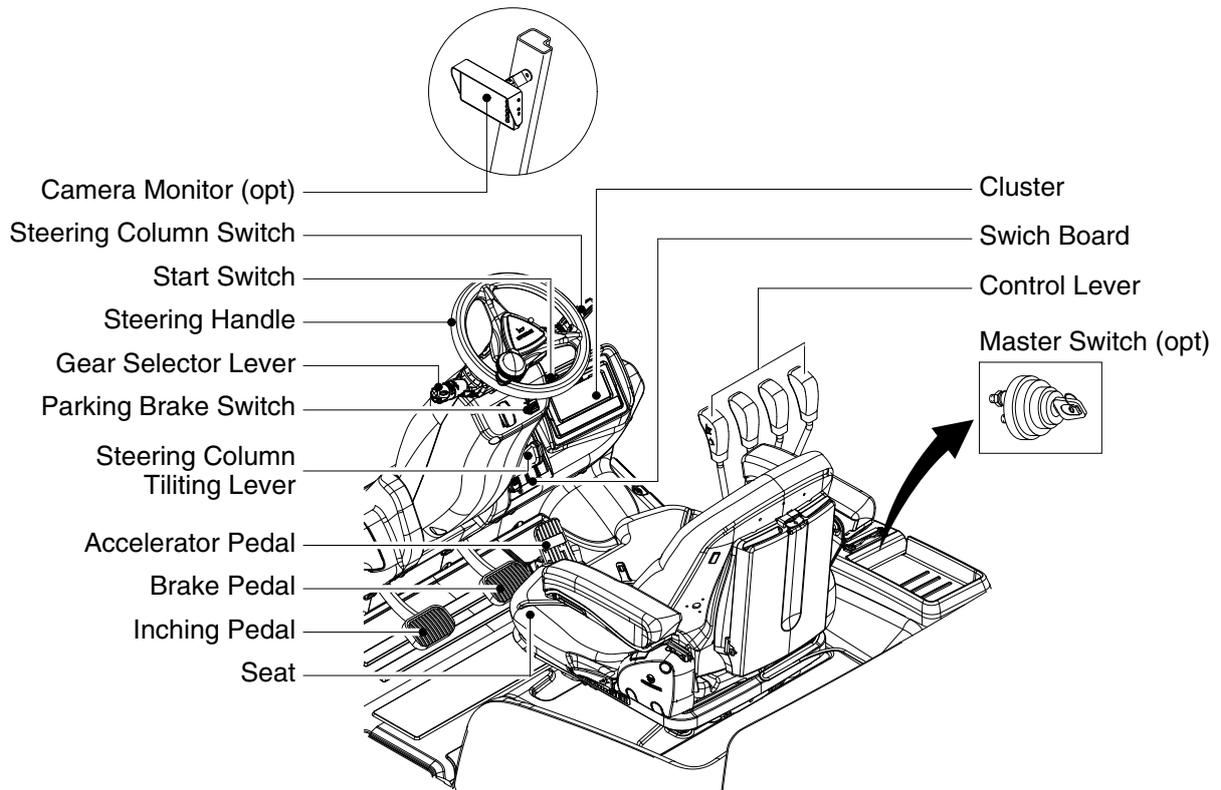
### 3. CAB DEVICES

1) The ergonomically designed console box and suspension type seat provide the operator with comfort.

#### 2) ELECTRONIC MONITOR SYSTEM

(1) The centralized electronic monitor system allows the status and conditions of the truck to be monitored at a glance.

(2) It is equipped with a safety warning system for early detection of truck malfunction.



25LC93KY02

## 4. CLUSTER

### 1) STRUCTURE

Like following figure, cluster is consisted of LCD and buttons. LCD will indicate the operation and abnormal status of truck to the driver in order to use and maintenance. Also, LCD allows to set and indicate the various modes, monitoring, and gadgets.

- ※ The cluster installed on this truck does not entirely guarantee the condition of the truck. Daily inspection should be performed according to chapter 7. PLANNED MAINTENANCE AND LUBRICATION.
- ※ When the cluster provides a warning immediately check the problem, and perform the required action.



35L93KY03

## 2) GAUGE

### (1) Operation screen

Operating screen will be displayed if turn on the start switch.



35L93KY04

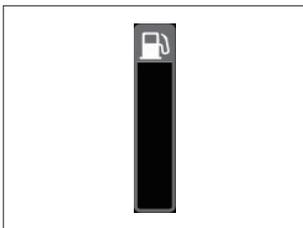
- |   |             |   |                           |
|---|-------------|---|---------------------------|
| 1 | Speed meter | 3 | Coolant temperature gauge |
| 2 | Fuel gauge  | 4 | Operating time            |

### (2) Speed meter

It indicates the speed of truck and is calibrated in kilometer per hour (km/h) or miles per hour (mph).

※ Speed unit can be set in the speed unit menu of display set up at page 3-29.

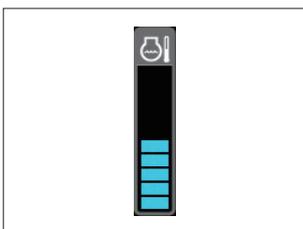
### (3) Fuel gauge



35L93KY05

- Fuel gauge displays the approximate amount of fuel remaining in the fuel tank.
- It shall be obtained fuel as soon as warning lamp  lights on.
- ※ For trucks using LPG fuel, the fuel gauge level is not displayed.

### (4) Coolant temperature gauge



35L93KY06

- It indicates the temperature of the engine coolant.
  - White zone : 40 ~ 120 °C (104 ~ 248 °F)
  - Red zone : Over 120 °C (248 °F)
  - Warning lamp on : Over 115 °C (239 °F)
- If the gauge display in the red zone, or warning lamp  comes on, please stop the engine and inspect the coolant system.

### (5) Clock



35L93KY07

- It displays the usage time of the truck.

### 3) WARNING LAMPS

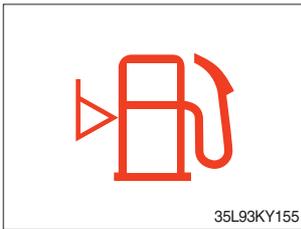


35L93KY08

No.	Warning lamp		No.	Warning lamp	
1		Fuel Level warning lamp	8		Transmission oil temperature warning lamp
2		coolant temperature warning lamp	9		Air cleaner filter warning lamp
3		Engine oil pressure warning lamp	10		DPF regeneration warning lamp (only diesel)
4		Water in fuel warning lamp (only diesel)	11		DPF inhibit warning lamp (only diesel)
5		Engine check warning lamp	12		DPF high temperature warning lamp (only diesel)
6		Battery charge warning lamp	13		Brake oil level warning lamp
7		Communication error warning lamp			

※ Warning and indicator lamp will display only items that were set as ON, and all warning and indicator will be displayed in the left or right side of screen. And directional indicator lamp will display at the center.

### (1) Fuel level warning lamp



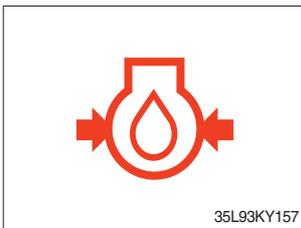
- Warning lamp will be displayed if fuel level is low.
- Please refuel immediately if the lamp is on.

### (2) Coolant temperature warning lamp



- Coolant temperature warning will lit up when temperature is over 115 °C (239 °F).
- If the warning lamp is on continuously, please inspect the coolant system.

### (3) Engine oil pressure warning lamp



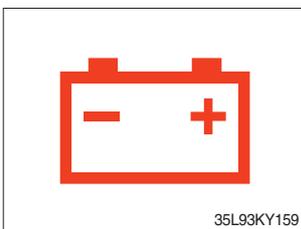
- This warning lamp will be lit up when engine oil pressure is low.
- Stop the engine immediately if the warning lamp is lit up.
- Please check the engine oil.

### (4) Engine check warning lamp



- If the lamp lights ON, check the engine and a failure code of cluster. If you have a proper action, the lamp will turn off within 4 times of restart.
- Check the failure code of cluster.

### (5) Battery charge warning lamp



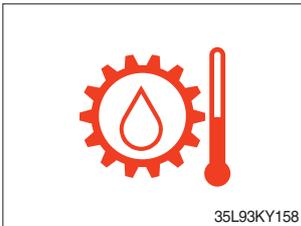
- This warning lamp is lit up when battery charging voltage is low.
- Please inspect the battery charging circuit if the warning lamp lights up.

#### (6) Communication error warning lamp



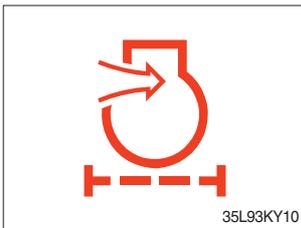
- This warning lamp will be lit up if the communication between MCU and ECU is fail.
- Please check the communication line if the warning lamp is lit up.

#### (7) Transmission oil temperature warning lamp



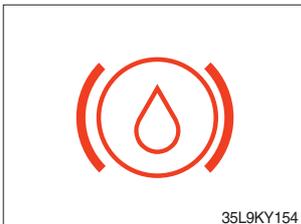
- Transmission oil temperature warning lamp will be lit up and flashing when temperature is 120 °C (248 °F) or higher.
- When this lamp lights up during operation, stop the engine and check the truck.

#### (8) Air cleaner filter warning lamp



- When the filter of the air cleaner that purifies the air supplied to the engine is clogged and a vacuum is generated inside, the switch is activated and turned on.
- If the lamp is on, check the filter and clean or replace it.

#### (9) Brake oil level warning lamp



- This warning lamp will be displayed if brake oil is low of reservoir tank.
- Please refill immediately if the lamp lights up.

#### 4) INDICATOR LAMPS

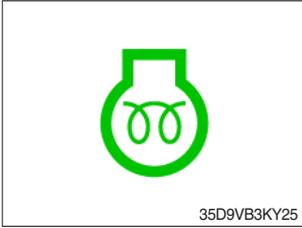


35L93KY11

No.	Indicator lamp		No.	Indicator lamp	
1		Consumable replacement indicator lamp	5		OPSS indicator lamp
2		Engine warming up indicator lamp	6		Driving indicator lamp
3		Fuel warmer indicator lamp (only diesel)	7		
4		Parking brake indicator lamp	8		

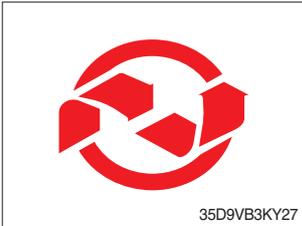
※ Warning and indicator lamp will display only items that were set as ON, and all warning and indicator will be displayed in the left or right side of screen. And directional indicator lamp will display at the center.

#### (1) Engine warming up indicator lamp



- The truck senses the engine coolant temperature and warms up engine when needed.
- When it is happening, the indicator lamp is ON.

#### (2) Consumable replacement indicator lamp



- Lights up if consumables which must be replaced are exist.
- The indicator lamp will light up only 3 minutes since start switch ON, and then light OFF.
- Please check the consumables management list in maintenance menu.

#### (4) Parking brake indicator lamp



- Lights up when parking brake is ON.

#### (5) OPSS indicator lamp



- Lights up if driver leave seat during operation.
  - Truck driving and/or mast control will be blocked if lamp is lit up.
- ※ Please refer to page 0-11 for details.

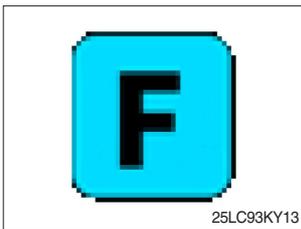
## (6) Driving indicator lamp

### ① Neutral



- This indicator lamp will be lit up when direction lever is located in neutral.

### ② Forward



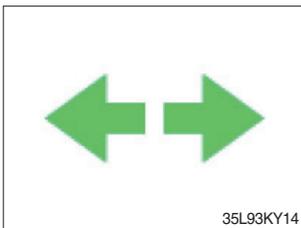
- This indicator lamp is displayed if the forward gear is selected.
- First gear will be displayed as **F<sub>1</sub>**, and second gear will be displayed as **F<sub>2</sub>**.

### ③ Reverse



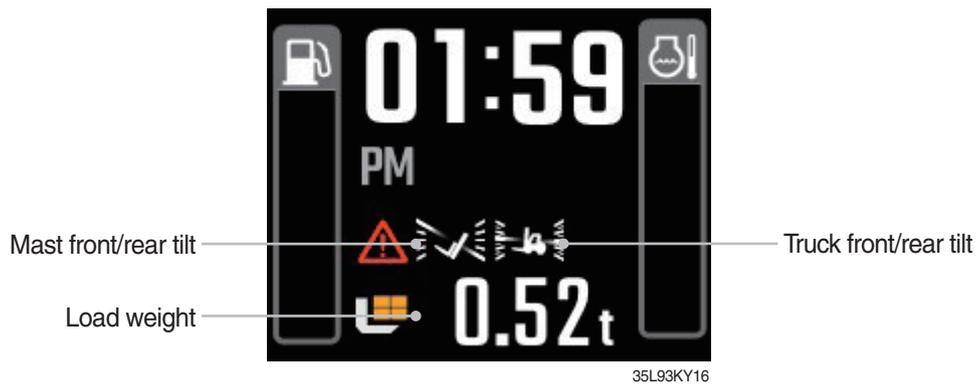
- This indicator lamp is displayed if the reverse gear is selected.

### ④ Right or left turning indicator lamp

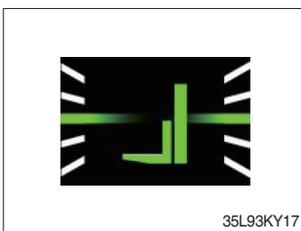


- This indicator lamp will flash if turns on the right or left turn signal.

## 5) INFORMATION DISPLAY (option)



### (1) Mast front/rear tilt



- Display the real time tilt of mast.

### (2) Truck front/rear tilt



- Display the front/rear tilt of truck in real time.
- The red warning symbol turned on condition.
  - Stop : Tilt angle is higher than  $2.3^{\circ}$
  - Driving : Tilt angle is higher than  $10.2^{\circ}$

### (3) Load weight



- Displays the weight of the cargo.
- If the weight sensor is not attached, it is dimmed

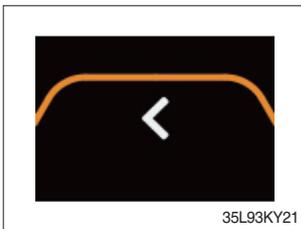
## 6) BUTTONS

### (1) Enter (select)



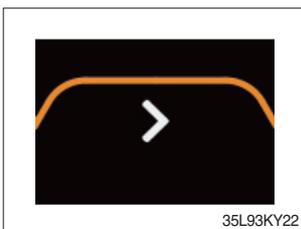
- This switch is used to enter into the menu or to select.

### (2) UP/Left



- This switch is used to move upward or leftward in menu or increase the value.

### (3) Down/Right



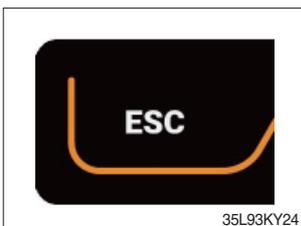
- This switch is used to move downward or rightward in menu or decrease the value.

### (4) Menu or Home



- This switch is used to enter into the menu or return to home.

### (5) Cancel (ESC)



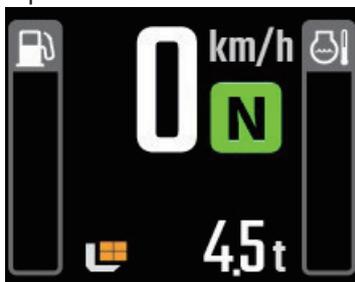
- This switch is used to cancel or move to upper menu.

## 7) MAIN MENU

### (1) Structure

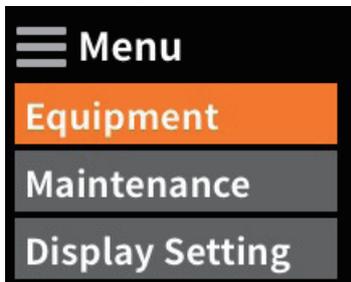
A menu consists of main menu and sub-menu.

Operation Screen



35L93KY25

Main Menu Screen

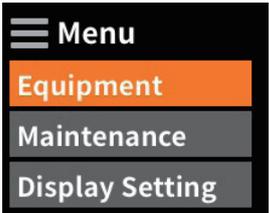
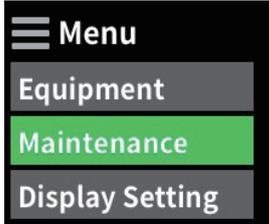
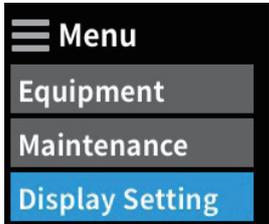


35L93KY26

Sub-Menu Screen



35L93KY27

No.	Main menu	Sub menu	Explanation
1		<ul style="list-style-type: none"> <li>· Model select</li> <li>· Tilt setting (option)</li> <li>· Weight sensor setting (option)</li> <li>· ESL setting</li> <li>· DCSR setting</li> <li>· HAC setting</li> <li>· Vehicle max speed limit (null)</li> <li>· Clutch protection alarm</li> <li>· Zero start setting</li> <li>· Auto shift setting (null)</li> <li>· Information</li> </ul>	<ul style="list-style-type: none"> <li>· Diesel, LPG</li> <li>· Vehicle tilt Initialize</li> <li>· Enter the cylinder cross section area, Adjust load weight, Weight display setup</li> <li>· ESL setting, Engine start limit, Delay time</li> <li>· DCSR on, Cut-off driving speed, Restore driving speed</li> <li>· Maximum speed limitation</li> <li>· Speed setting, Overlap time setting</li> <li>· Cluster-CI information</li> </ul>
2		<ul style="list-style-type: none"> <li>· Failure History</li> <li>· Maintenance management</li> <li>· I/O information</li> <li>· User password change</li> </ul>	<ul style="list-style-type: none"> <li>· Engine failure history</li> <li>· Change oil and filter replacement cycle</li> <li>· Analog Input, Digital input/output</li> </ul>
3		<ul style="list-style-type: none"> <li>· Time Setting</li> <li>· LCD brightness adjustment</li> <li>· LED brightness adjustment</li> <li>· Unit Setting</li> <li>· Language</li> <li>· ESL password change</li> </ul>	<ul style="list-style-type: none"> <li>· Date, Time setting</li> <li>· Speed, Weight, Temperature, Pressure, Date</li> </ul>

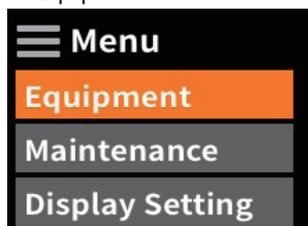
## (2) Equipment menu

### ① Model select (a required setting)

- How to check the Model Select (check under the start switch ON status)
- Selection will be canceled if pressed the cancel button.

※ **This is a required setting. Some functions may not be worked properly if you do not select the model.**

#### 1. Equipment



35L93KY26

Enter to equipment menu.

#### 2. Password



35L93KY28

Enter the password.  
Default password is "00000".  
Password length must be 5~10 digits.

#### 3. Model select



35L93KY29

Choose model select

#### 4. Diesel or LPG



35L93KY30

Please select the fuel type.

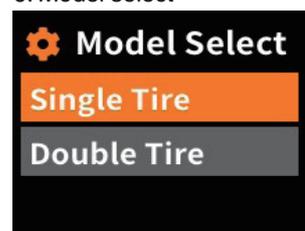
#### 5. Choose model



25LC93KY31

Select the your model.

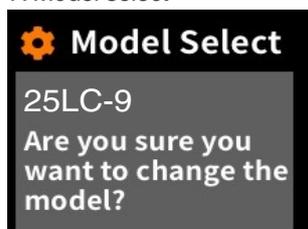
#### 6. Model select



35L93KY32

Select the your tire.

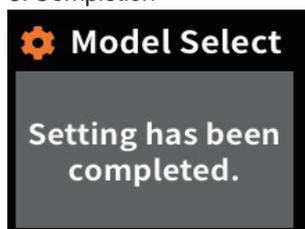
#### 7. Model select



25LC93KY33

Change on select button.

#### 8. Completion



35L93KY34

- ※ If you want to move back to previous page, please enter ESC button in any stage.
- ※ It shall be selected right model to prevent malfunction of truck.

② **Tilt setting** (option, as required setting)

How to check "Tilt reset" (Check under the start switch ON status.)

※ The tilt sensor has already been initialized when deliver the truck from factory.

※ Tilt reset if the tilt sensor figure or truck tilt is not horizontal in the flatland.

▲ You must set tilt in the flatland since this is a horizontal set up.

1. Tilt setting



Choose tilt reset.

2. Instruction



Follow the instruction showing in the screen.

3. Completion



Setting has been completed.

a. **Check functions**

(a) Check the real time operation by changing angles of truck tilt and mast tilt.

(b) **Auto-leveling**

- (a) Tilt mast inward or outward.
- (b) Start tilting mast toward its vertical position, pushing the auto tilt leveling switch.
- (c) Check if the mast stops traveling when it becomes vertical to ground.

(c) **Front/rear tilt warning** (red)

- Stop :  $\pm 2.3^\circ$  (1.5 tons ~ 5.0 tons)
- Driving :  $\pm 10.2^\circ$  (1.5 tons ~ 5.0 tons)

(d) **Left/right tilt warning** (red)

- Stop :  $\pm 3.4^\circ$  (1.5 tons~5.0 tons)
- Driving

Truck weight	Warning angles (Red)
1.5 tons ~ 2.0 tons	$\pm 20.3^\circ$
2.2 tons ~ 3.3 tons	$\pm 20.8^\circ$
3.5 tons ~ 4.5 tons	$\pm 24.2^\circ$
5.0 tons	$\pm 28.0^\circ$

### ③ Weight sensor set up (option)

- How to check "the weight sensor set up" (Check under the start switch ON status)
- There are three settings for weight sensor. (unload, load, reset)

※ The weight sensor has already been set when deliver the truck from factory.

#### a. Setting cylinder cross section

##### 1. Weight sensor setting



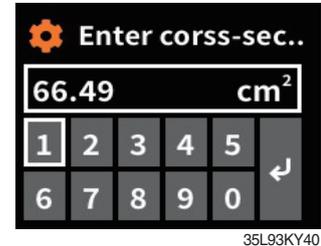
Choose weight sensor setting.

##### 2. Cylinder cross-section



Choose Cylinder Cross-Section. If Cylinder Cross-Section is already set up, setting value is shown in initial screen.

##### 3. Value



Enter cylinder cross-section value using up/down buttons.

##### 4. Completion



Setting has been completed.

※ Cross-section value

Model	V-mast	TF-mast	QF-mast
25/30LC-9	39.3	44.2	88.4
33LC-9	47.5	56.7	88.4

#### b. Unloaded status adjustment

##### 1. Weight sensor setting



Choose weight sensor setting and enter.

##### 2. Load weight adjust



Choose load weight adjust and enter.

##### 3. Unloaded status adjustment



Choose unloaded status adjustment and enter.

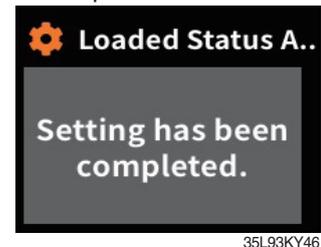
##### 4. Instruction



Follow the instruction showing in the screen. After finish setting and press enter button



##### 5. Completion



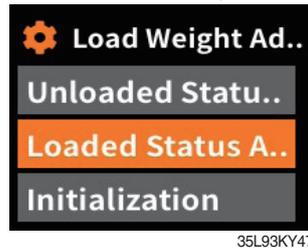
### c. Loaded status adjustment

#### 1. Weight sensor setting



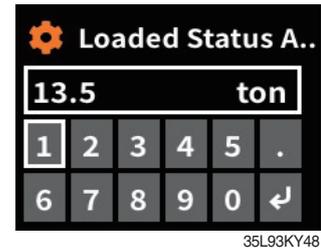
Choose weight sensor setting and enter.

#### 2. Loaded status adjustment



Choose loaded status adjustment and enter.

#### 3. Value



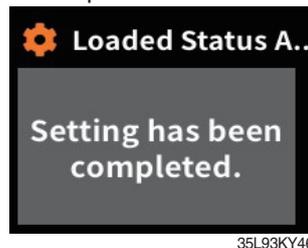
Enter load weight using up/down buttons.

#### 4. Instruction



Follow the instruction showing in the screen. After finish setting and press enter button. Please proceed the operation within 30 seconds.

#### 5. Completion



- ※ Must be prepared to lift up by locating the load on the fork before enter the weight.
- ※ MCU recognizes the weight automatically by detecting the pressure change.
- ※ Must be performed only the load lift task within 30 seconds. If it is not completed within 30 seconds, this process will be canceled automatically.
- ※ Accurate weight value is not recognized if other pressure changes that are occurred besides salvage work.
- ※ Re-perform the "Load/No-Load Adjustment", if the measurement malfunction is occurred.

### d. Weight sensor reset

Initialize the all values of "No-Load Adjustment" and "Local Adjustment" that were entered previously. (Cylinder cross-sectional area is not initialized.)

#### 1. Weight sensor setting



Choose weight sensor setting and enter.

#### 2. Reset



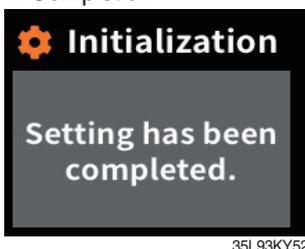
Enter to reset.

#### 3. Check



Press the enter button.

#### 4. Completion



### e. Weight display

Enable to adjust the digit-number of weight of main screen. Weight will be displayed as 0.5 tons if set as 100 kg unit. Weight will be displayed as 0.52 tons if set as 10 kg unit.

#### 1. Weight sensor setting



Choose weight sensor setting and enter.

100 kg unit



#### 2. Weight display setting



Enter to weight display setting.

10 kg unit



#### 3. Unit



Choose unit what you want to use.

### f. Overload alarm

#### 1. Weight sensor setting



Choose weight sensor setting and enter.

#### 2. Overload alarm



Enter to overload alarm.

#### 3. Select



Select on/off.

④ **ESL setting** (Startup control setting, standard) : **Default is "inactive"**

1. ESL setting



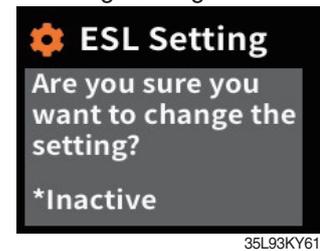
Choose ESL setting and enter.

2. Inactive



Choose inactive.

3. Change setting



If you want to change setting, press enter button.

2-1. Active



Choose active.

3-1. Change setting



If you want to change setting, press enter button.

4. Completion



**a. Check functions**

- (a) Set the active mode can be set when engine is starting.
- (b) Upon start switch ON, the password screen pops up and starting is prohibited until the right password has been offered. (But, driver still can start the truck if starts within 10 seconds from start switch OFF)
- (c) Set the mode as 5 min of delay time and start switch OFF.
- (d) check if the truck can start within 5 min and start switch OFF.
- (e) check if the truck requests password after 5 min.

※ **Start switch ON screen (when startup control mode is ON)**



## b. Delay time

### 1. ESL setting



35L93KY66

Choose delay time.

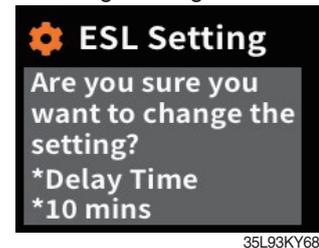
### 2. Select value



35L93KY67

Select value you want to apply.

### 3. Change setting



35L93KY68

If you are sure to change ESL, press enter.

### 6. Completion



35L93KY62

## ⑤ DCSR setting (Direction Change Shock Relief)

Set the mode ON. Below is how this feature functions.

- If you are driving at over the block drive speed and then change gear from forward to reverse (or reverse to forward), the gear stays as neutral until the truck reaches the restore drive speed.
- The car changes direction and starts to travel.

※ **Restore drive speed cannot be set over the block drive speed.**

### 1. DCSR setting



35L93KY69

Choose DCSR setting and enter.

### 3. Mode



35L93KY70

Select mode.

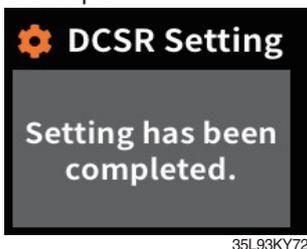
### 4. Setting



35L93KY71

Select on/off.

### 5. Completion



35L93KY72

### 6. Speed set (auto)



35L93KY73

If you want to change speed set, enter speed setting.

### 6. Set road speed



35L93KY74

⑥ HAC setting (option)

Set the mode ON. Below is how this feature functions.

- If you are trying to drive in stop status on hill, the truck does not move backward.

1. HAC setting



Choose HAC setting.

2. Setting



Select on/off.

3. Completion



⑦ Vehicle maximum speed limit

1. Vehicle max speed limit



Choose vehicle max speed limit.

2. Mode



Enter to mode function.

3. Setting



Select on/off.

4. Speed limit



Enter to limit speed menu.

5. Setting limit speed



Set limit speed.

6. Completion



- Driving speed < 10 km/h



- Driving speed ≥ 10 km/h



## ⑧ Clutch protection alarm

1. Clutch protection alarm



35L93KY86

Choose clutch protection alarm.

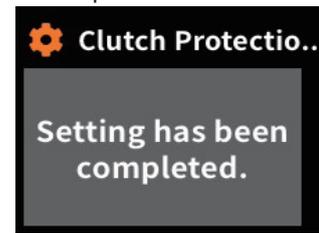
2. Setting



35L93KY87

Select on/off.

3. Completion



35L93KY88

## ⑨ Zero start setting

1. Zero start setting



35L93KY89

Choose zero start setting.

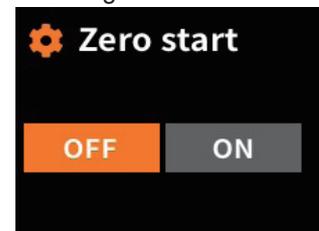
2. Mode



35L93KY90

Enter to mode function.

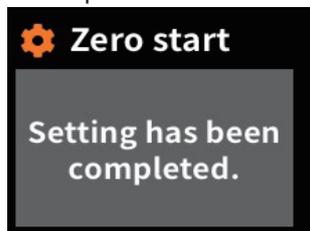
3. Setting



35L93KY91

Select on/off.

4. Completion



35L93KY92

## ⑩ Auto shift setting (null)

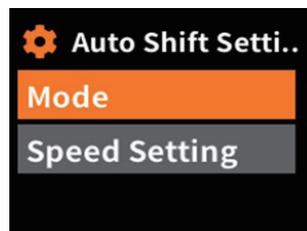
1. Auto shift setting



35L93KY93

Choose auto shift setting.

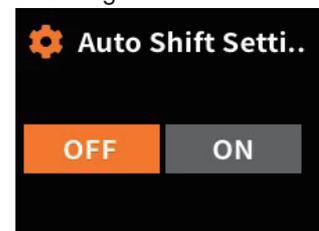
2. Mode



35L93KY94

Enter to mode function.

3. Setting



35L93KY95

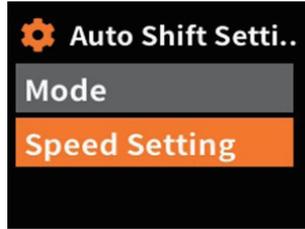
Select on/off.

4. Completion



35L93KY96

5. Speed setting



35L93KY97

Enter to speed setting.

6. Gear shift setting



35L93KY98

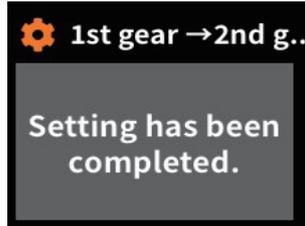
Select the desired change value.

7. Speed setting



35L93KY99

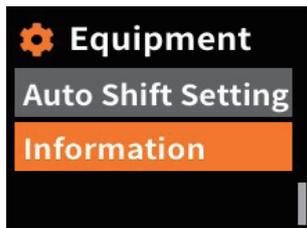
8. Completion



35L93KY100

⑪ Cluset information

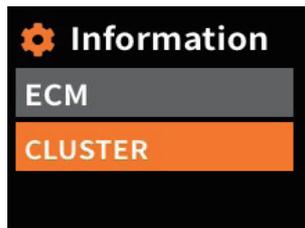
1. Information



35L93KY101

Choose information.

2. Cluster



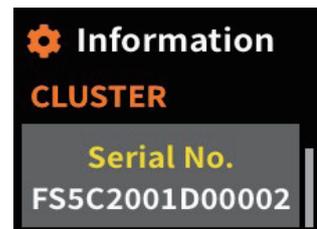
35L93KY102

Enter to cluster.

3. Checking.



25LC93KY103

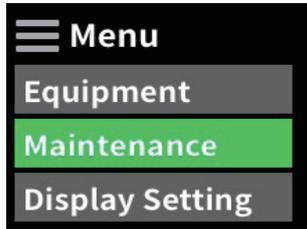


35L93KY104

### (3) Maintenance

#### ① Engine failure history

1. Maintenance



Enter to maintenance menu.

##### a. Check active fault

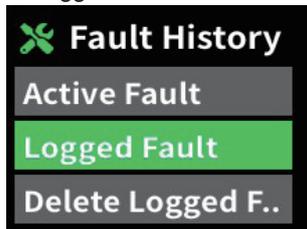
4. Active fault



Enter to active fault.

##### b. Check logged fault

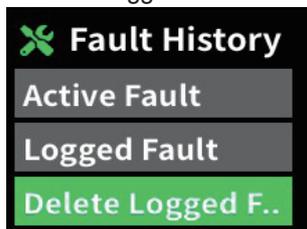
4. Logged fault



Enter to logged fault.

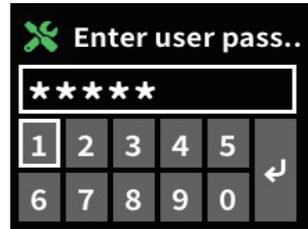
##### c. Delete logged fault

4. Delete logged fault



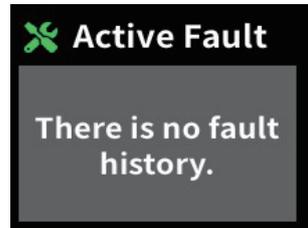
Enter to delete logged fault.

2. Password

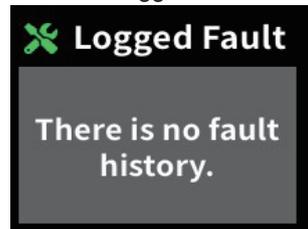


Enter the password.

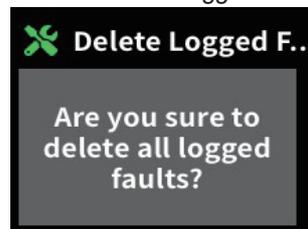
5. Check active fault



5. Check Logged fault



5. Check delete logged fault



3. Failure history



Choose failure history.

## ② Maintenance management

- If the consumables replacement cycle has been passed, alarm will be displayed as ON.
- Press the "Replacement" if replaced the consumables.
- Information about recent replacement (Max. 9) will be displayed.
- If you want to change the cycle, please press the "Change cycle" button.

1. Maintenance mangement



35L93KY114

Choose maintenance management and enter.

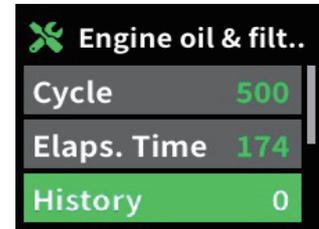
2. Select replacement item.



35L93KY115

Select the replace item.

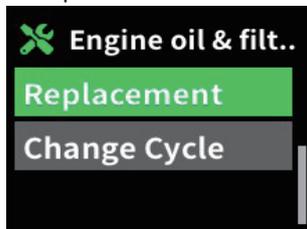
3. Check



35L93KY116

Select replacement using Up/Down button and press enter button.

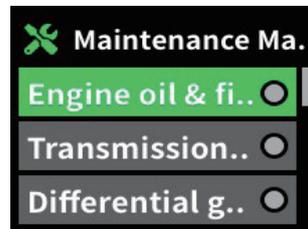
4. Replacement



35L93KY117

If you are sure to replace supplies, press enter button.

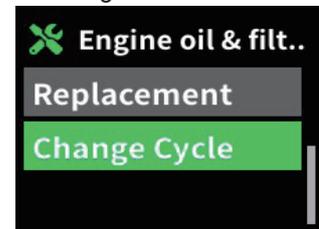
5. Select the item.



35L93KY118

Select the item you want to change maintenance interval.

6. Change



35L93KY119

Select using Up/Down button and press enter button.

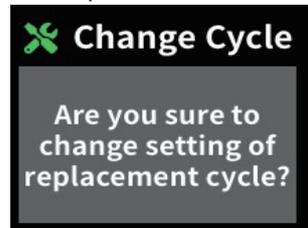
7. Setting



35L93KY120

Set the item value using Up/Down button and press enter button

8. Completion



35L93KY121

### ③ I/O information

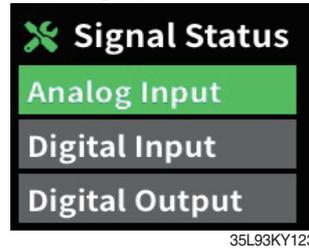
#### a. Analog input

1. I/O information



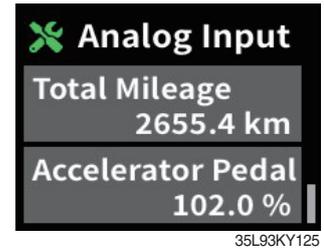
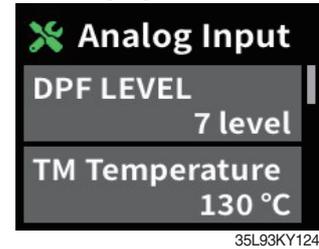
Choose I/O information.

2. Analog input



Enter to analog input.

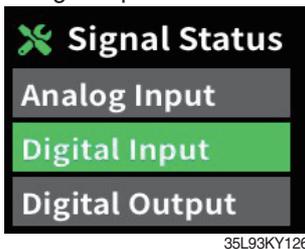
3. Analog signal list



You can check the analog signal list.

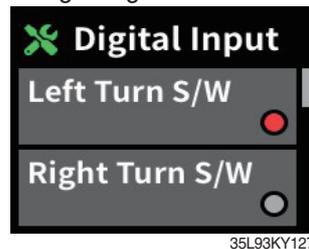
#### b. Digital input

1. Digital input

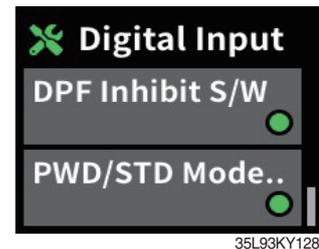


Enter to digital input.

2. Digital signal list

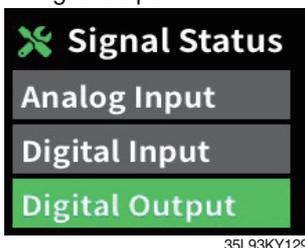


You can check the digital signal list.



#### c. Digital output

1. Digital output



Enter to digital output.

2. Digital signal list



You can check the digital signal list.

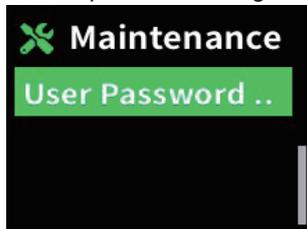


#### ④ User password change

- This function is to allow to change password from default password to user defined password.
- Password length must be 5~10 digits.

※ Since, if you forget the password, you must request the A/S, do not forget the password.

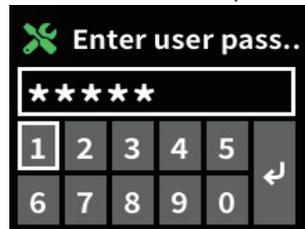
1. User password change



35L93KY132

Choose password change.

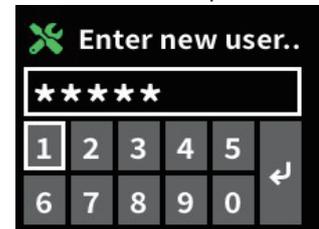
2. Enter current user password



35L93KY133

Enter current user password.

3. Enter new user password



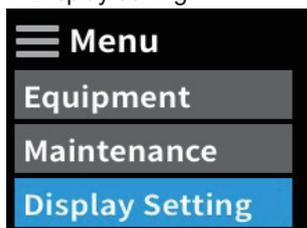
35L93KY134

Enter new user password.

#### (3) Display setting

##### ① Time setting

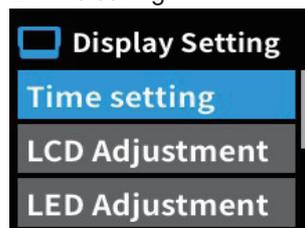
1. Display setting



35L93KY135

Enter to display setting.

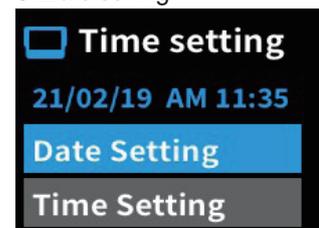
2. Time setting



35L93KY136

Choose time setting.

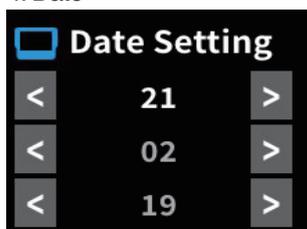
3. Date setting



35L93KY137

Choose date setting.

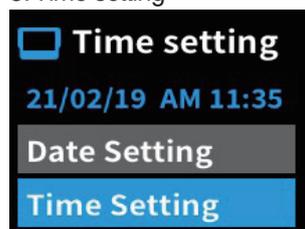
4. Date



35L93KY138

Change time using R/L button and enter button.

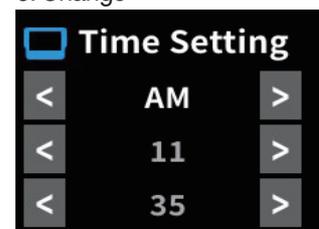
5. Time setting



35L93KY139

Choose time setting.

6. Change

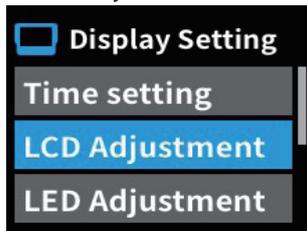


35L93KY140

Change time using R/L button and enter button.

## ② LCD brightness adjustment

1. LCD adjustment



Choose LCD brightness adjustment

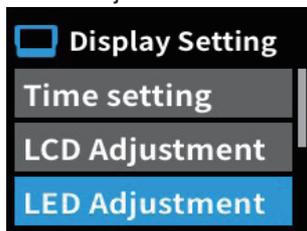
2. LCD brightness



You can see this display when you choose Display Brightness is automatic.

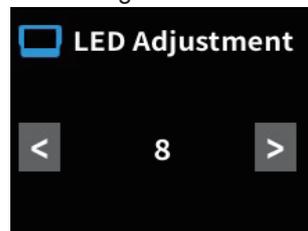
## ③ LED brightness adjustment

1. LCD adjustment



Choose LED brightness adjustment

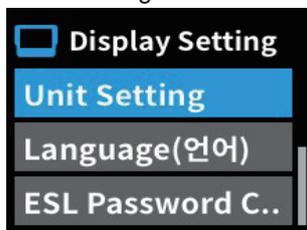
2. LCD brightness



You can see this LED when you choose LED Brightness is automatic.

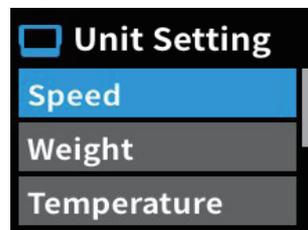
## ④ Unit setting

1. Unit setting



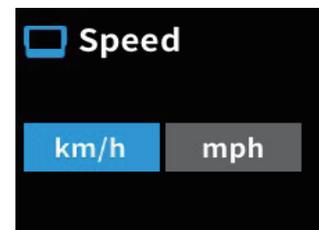
Enter to unit setting.

2. Select unit



Select the unit you want to change.

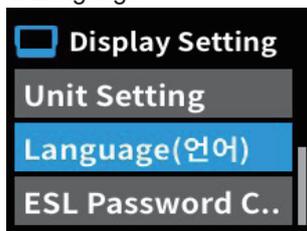
6. Unit



Select the unit.

## ⑤ Language

1. Language



Enter to language.

2. Select



Select language.

## ⑥ ESL password change

1. ESL password change

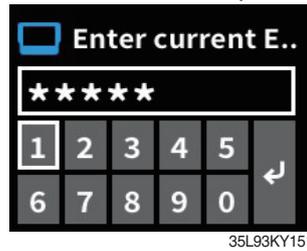


Enter ESL password change and enter.

4. Completion



2. Enter current ESL password



Enter current user password.

3. Enter new ESL password



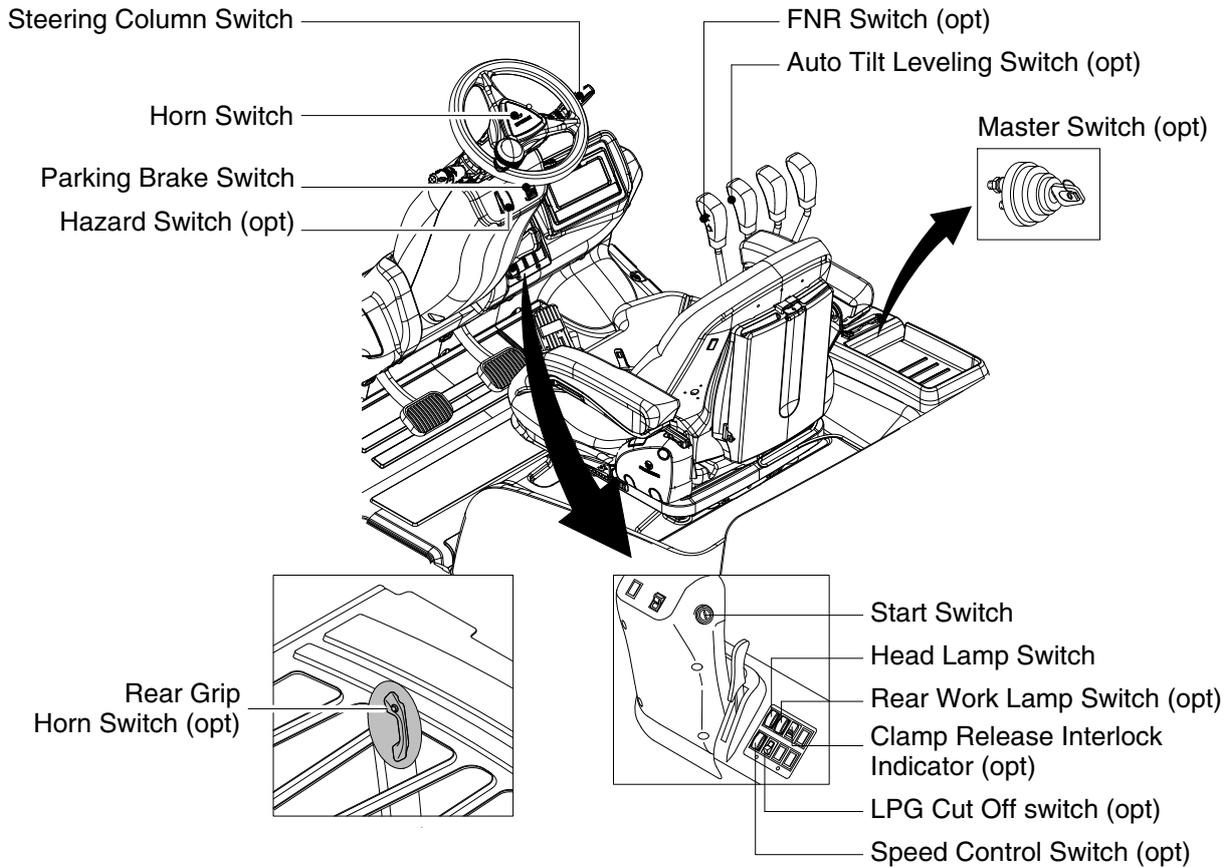
Enter new ESL password.

## 8) CAUSES AND CORRECTION OF CLUSTER WARNING LAMP

No.	Warning lamp types	Symbol	Warning and indicator lamp	Causes and correction
1	Engine oil pressure warning		Engine oil pressure warning lamp	Engine oil pressure is low. Please the engine oil refill.
2	Engine warming up indicator		Engine warming up indicator lamp	Warming up will be started.
3	Water in fuel warning		Water in fuel warning lamp	Please drain the water of the fuel filter. (only diesel)
4	Engine check warning		Engine check warning lamp	Check the failure code of cluster.
5	DPF regeneration warning		DPF regeneration warning lamp	DPF regeneration is required. (only diesel)
6	DPF inhibit warning		DPF inhibit warning lamp	DPF regeneration is inhibited. (only diesel)
7	High Exhaust System Temperature		Exhaust system high temperature warning lamp	Exhaust system high temperature will be started. (only diesel)
8	Fuel warmer indicator		Fuel warmer indicator lamp	Warming up the fuel. (only diesel)
9	TM oil temperature warning		TM oil temperature warning lamp	TM oil is over temperature condition.
10	Parking brake indicator		Parking brake indicator lamp	Parking brake is operating.
11	Battery charging warning		Battery charging warning lamp	Battery is not being charged. Please check alternator and wiring.
12	OPSS indicator		OPSS indicator lamp	Lights up when the operator leaves the seat.
13	Fuel warning		Fuel warning lamp	Fuel level is low. Please refill the diesel oil.
14	Coolant temperature warning		Engine coolant temperature warning lamp	Engine coolant is over temperature condition.
15	Air cleaner filter warning		Air cleaner filter warning lamp	When the air cleaner needs to be checked and replaced.
16	Consumables replacement indicator		Consumables replacement indicator lamp	Consumables replacement cycle has been passed.
17	Communication error warning		Communication error warning lamp	Communication with between MCU and ECU has been failed. Check communication line.

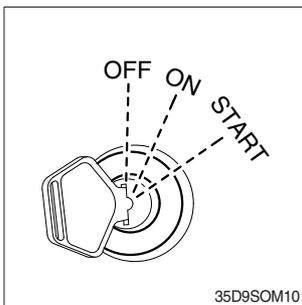
No.	Warning lamp types	Symbol	Warning and indicator lamp	Causes and correction
18	Break oil level warning		Brake oil level warning lamp	Brake oil level is low. Please top up brake oil.
19	LH/RH turn		LH/RH turn indicator lamp	-
20	Forward 1st/2nd gear		Foward 1st/2nd gear lamp	-
21	Reverse gear		Reverse gear indicator lamp	-
22	Neutral gear		Neutral gear indicator lamp	-

## 5. SWITCHES



25LC93KY162

### 1) START SWITCH



(1) There are three positions, OFF, ON and START.

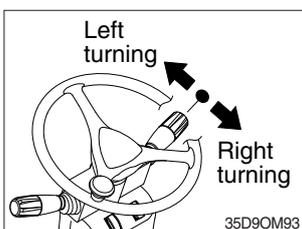
※ Before starting, set gear shift lever at NEUTRAL and pull parking brake lever to LOCK position.

- OFF : None of electrical circuits activates.
- ON : All electrical systems are ON.
- START : Use when starting the engine.

Release key immediately after starting.

※ Key must be in the ON position with engine running to maintain electrical and hydraulic function and prevent serious truck damage.

### 2) STEERING COLUMN SWITCH

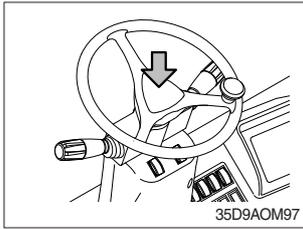


① This lever makes the turn signal lamp flash.

- Turning left : Push lever forward
- Turning right : Pull lever backward

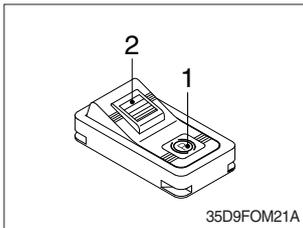
※ When the steering wheel is returned to straight, the turn signal is not cancelled. Return the lever to central position by hand.

### 3) HORN SWITCH



(1) The horn sounds when the button is pressed.

### 4) PARKING BRAKE SWITCH



(1) Position 1

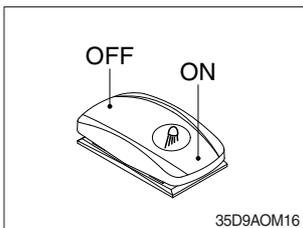
Parking brake is applied and front wheel is locked.

(2) Position 2

① Parking brake is released.

※ **Before moving the truck be sure the parking brake is released.**

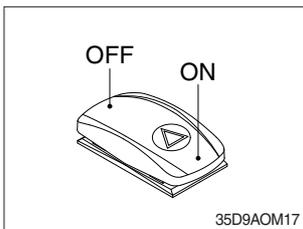
### 5) HEAD LAMP SWITCH



(1) This switch is used to operate head lamps.

Press this switch to turn on head lamps.

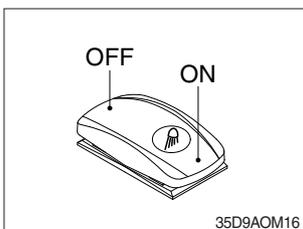
### 6) HAZARD SWITCH (option)



(1) Use when emergency situation or while loading operation.

※ **If the switch is left on for a long time while the engine does not run, the battery would be dead(discharged).**

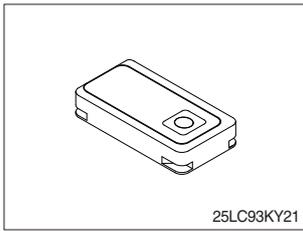
### 7) REAR WORK LAMP SWITCH (option)



(1) This switch is used to operate work lamps.

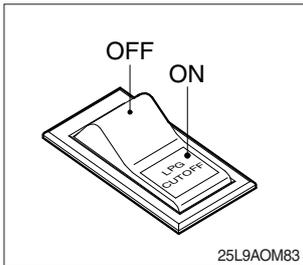
Press this switch to turn on work lamps.

### 8) CLAMP RELEASE INTERLOCK INDICATOR (option)



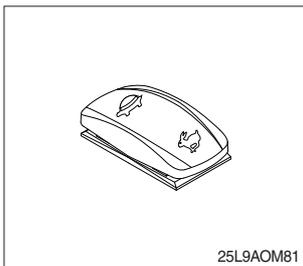
- (1) When press the clamp release interlock switch, the indicator turns green. The operator can recognize that the clamp release interlock is operating normally. When the clamp release interlock switch is released, the green light goes out.

### 9) LPG CUTOFF SWITCH (option)



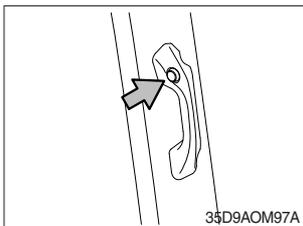
- (1) This switch is used to cutoff the LPG fuel system when maintaining the truck.  
※ **Use only if you remove the fuel of the fuel line in check or maintenance.**

### 10) SPEED CONTROL SWITCH (option)



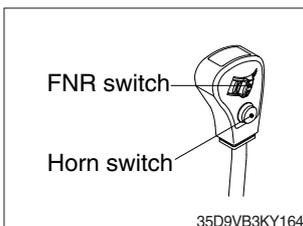
- (1) This switch is used to select of speed control for high travel speed or low travel speed. When the switch is pressed to symbol of rabbit, the truck is traveled with high speed. On the contrary, when the switch is pressed to symbol of turtle, the truck is traveled with low speed.

### 11) REAR HORN SWITCH (option)



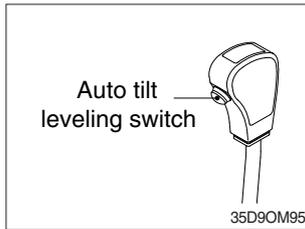
- (1) The rear horn sounds when the button is pressed.

### 12) FNR AND HORN SWITCH (option)



- (1) FNR switch  
If you move the FNR switch forward, the truck moves forward, but if you move the FNR switch backward, the truck moves reverse.  
※ **FNR switch has no speed select switch, thus use autoshift "ON" only.**
- (2) Horn switch  
The horn sounds when the button is pressed.

### 13) AUTO TILT LEVELING SWITCH (option)



(1) When the lever is operated on pressing this auto tilt leveling switch, the auto tilt leveling function is activated.

(2) Auto tilt leveling function

This function is mast tilt angle adjust to zero (0) degree (refer to the truck position).

※ This function have to be used at the engine low idle rpm and stop position. If this function is activated at the high idle rpm or during starts, do not guarantee the mast stop at upright vertical position.

※ Operate the auto tilt function with unload conditions.

▲ When used in load condition, the load on the fork can fall down.

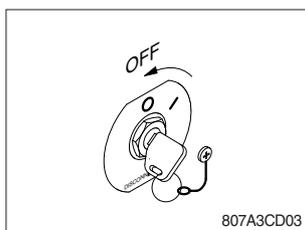
### 14) CLAMP RELEASE INTERLOCK SWITCH (option)



(1) When the lever is operated on pressing this clamp release switch, the clamp opening or releasing function is activated.

※ Safety standard ANSI/ITSDF B56.1, Section 7.25.7 covers all lift trucks with a load bearing clamp (paper roll clamp, carton clamp, etc.), and requires the driver to make two distinct motions before opening or releasing the clamp. For example, you must press a switch and then move a lever to unclamp the load.

### 15) MASTER SWITCH (option)



(1) This switch is used to shut off the entire electrical system.

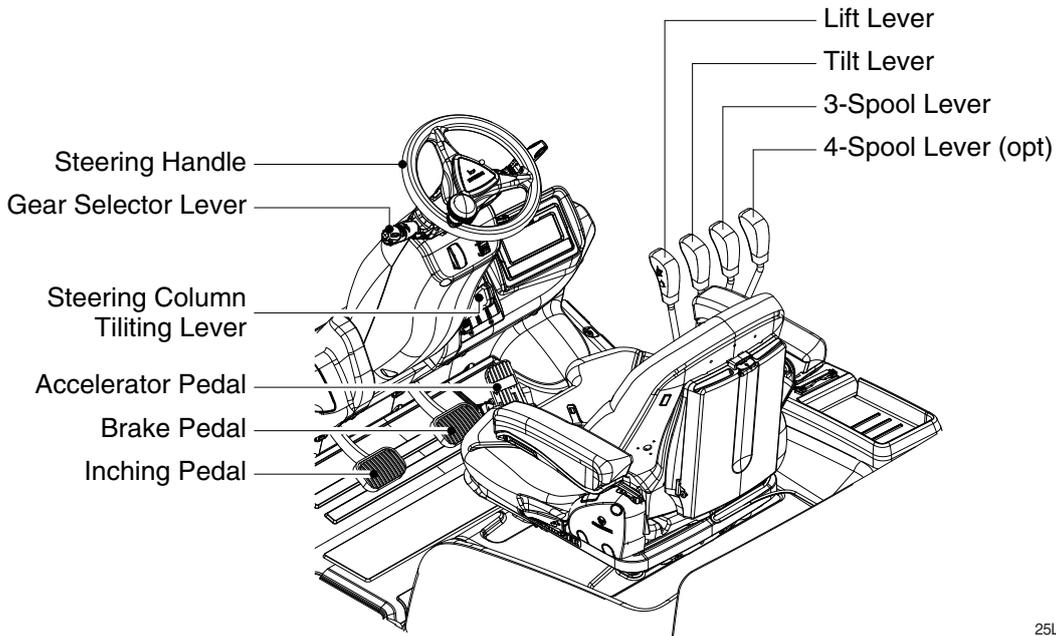
When the truck is not operated for a long time, turn OFF the master switch for the safety purpose.

(2) I : The battery remains connected to the electrical system.

O : The battery is disconnected to the electrical system.

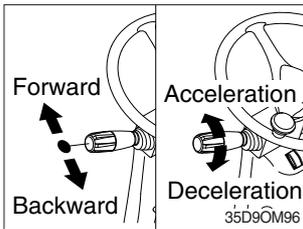
※ Never turn the master switch to O (OFF) with the engine running. Engine and electrical system damage could result.

## 6. CONTROL DEVICE



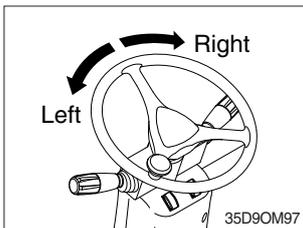
25LC93KY165

### 1) GEAR SELECTOR LEVER



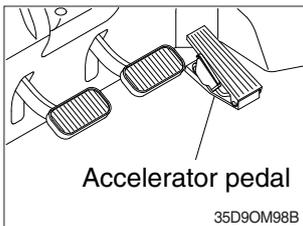
- (1) This lever is used for gear selection, forward 2 stages and reverse 2 stages.
- (2) If you push the gear selector lever, the truck moves forward, but pulling the gear selector lever, the truck moves backward.
- (3) If you turn the gear selector lever forward, the truck increases the speed, but if you turn the gear selector lever backward, the truck reduces the speed.

### 2) STEERING HANDLE



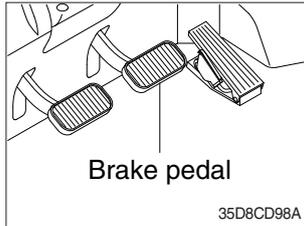
- (1) A steering cylinder in the center of the steering axle will operate the steering function.
- (2) Turning the steering wheel left, the truck moves to the left side and turning it right, the truck moves to the right side.

### 3) ACCELERATOR PEDAL



- (1) This pedal controls the engine speed. The engine speed will increase in proportion to the degree of force applied to this pedal.
- (2) Unless this pedal is pressed, the truck will run at low idling.

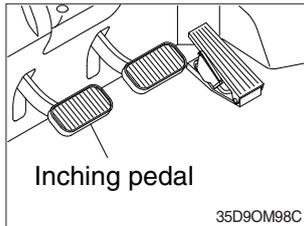
#### 4) BRAKE PEDAL



(1) If the pedal is pushed, braking force is generated and bring the truck to a stop.

※ **Do not operate the truck with stepping on the brake pedal unnecessarily, or bring premature wear of brake disc.**

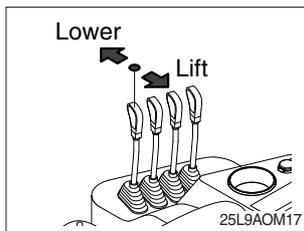
#### 5) INCHING PEDAL



(1) The inching pedal is used for fine control of forward and reverse movement when lifting up or putting down loads.

※ **Do not put your foot on the inching pedal or brake pedal unless using it.**

#### 6) LIFT LEVER



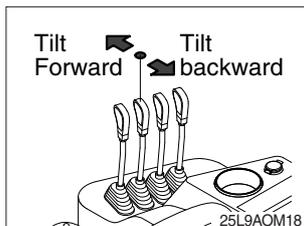
(1) Lift  
PULL the lever BACK to LIFT the load.

(2) Lower  
PUSH the lever FORWARD to LOWER the load.

(3) Holding  
When the lever is released, the lifting or lowering action stops.

※ **Lifting speed is controlled by accelerator pedal.**  
**Lowering speed is controlled by lever only.**

#### 7) TILT LEVER



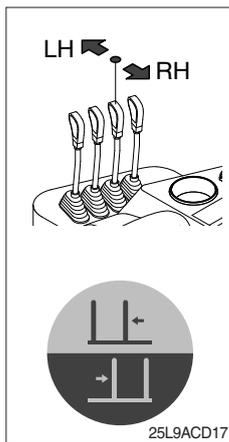
(1) Tilt forward  
PUSH the lever FORWARD to tilt mast FORWARD.

(2) Tilt back  
PULL the lever BACK to tilt mast BACKWARD.

(3) Holding  
When the lever is released, tilting action stops.

※ **Forward and backward tilting speeds are controlled by tilt lever and accelerator pedal.**

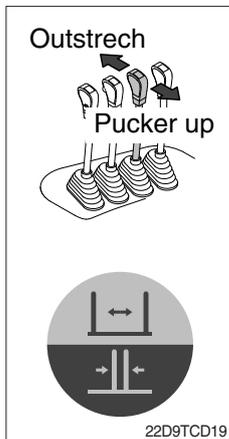
## 8) LEVER FOR SIDE SHIFT (option)



- (1) LH movement  
Push the lever forward to move the left hand for the side shift.
- (2) RH movement  
Pull the lever backward to move the right hand for the side shift.

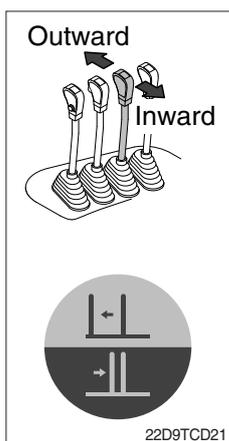
## 9) LEVER FOR SIDE SHIFT WITH FORK POSITIONER (option)

### (1) Fork positioner (synchronizer type)

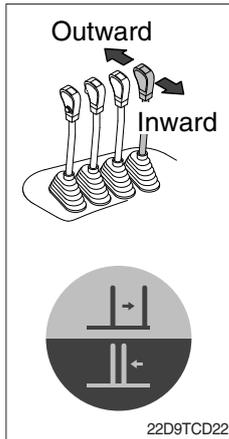


- ① Outstretch the forks  
Push the lever forward to outstretch simultaneously outward of the both forks.
- ② Pucker up the forks  
Pull the lever backward to pucker up simultaneously inward of the both forks.

### (2) Fork positioner (independent type)



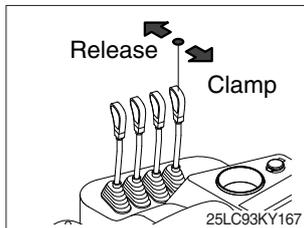
- ① LH fork movement
  - Push the lever forward to move outward for the LH fork.
  - Pull the lever backward to move inward for the LH fork.



② RH fork movement

- Push the lever forward to move outward for the RH fork.
- Pull the lever backward to move inward for the RH fork.

10) CLAMP RELEASE INTERLOCK LEVER (option)



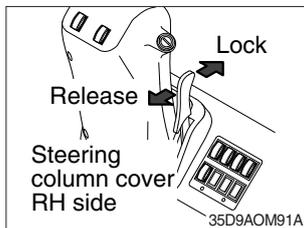
(1) Clamp open and Release

Press the switch and push the lever forward to release the clamp.

(2) Clamp

Pull the lever backward to the clamp.

11) STEERING COLUMN ADJUST LEVER



(1) The angle of the steering column can be adjusted forward and backward to 13 degree.

- ① Release : Pull the lever backward.
- ② Lock : Release the lever.

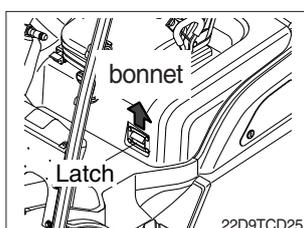
※ METHOD OF ADJUSTING STEERING COLUMN ANGLE

- (1) Pull the lock lever backward.
- (2) Move the steering column forward or backward to select the most suitable position.
- (3) Release the lever to lock the steering column in the desired position.

※ After adjusting, try to move the steering column backward and forward to check that it is locked in the selected position.

▲ Always carry out the adjustment with the machine stopped. Never try to adjust the steering column when the machine is moving.

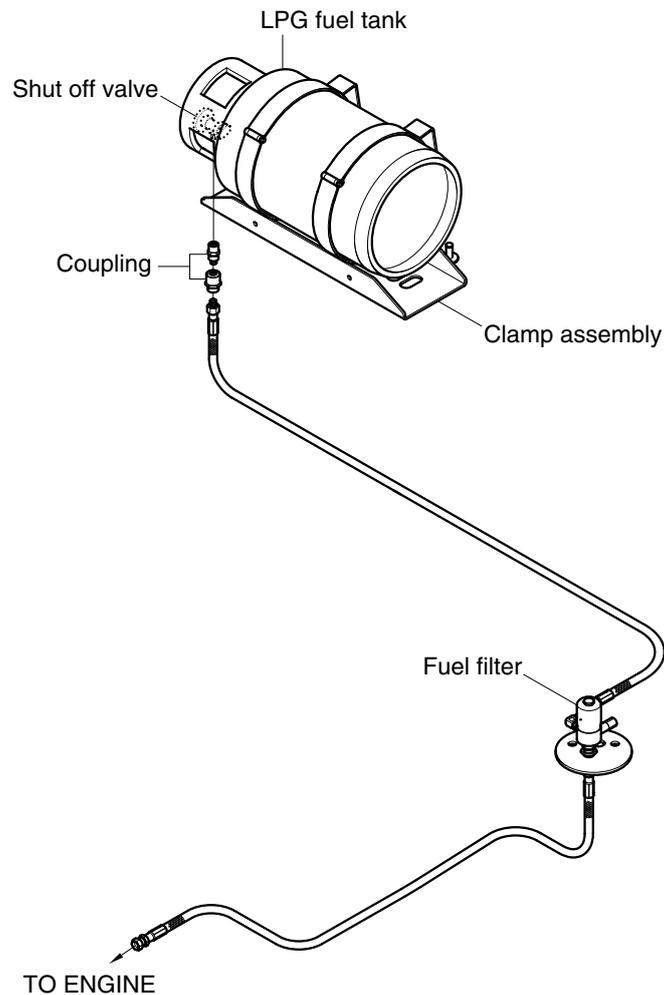
12) BONNET LATCH



(1) Pull the latch and raise the bonnet to open it.

(2) Inspection and maintenance can then be carried out easily.

## 7. FUEL SYSTEM



35L7OM104

**▲ LPG is HIGHLY FLAMMABLE. Never smoke when changing tanks. Never change tanks with the engine running.**

**▲ LPG is HEAVIER THAN AIR. It settles on your clothes and the ground around you, displacing oxygen vital for breathing. Open flames can cause fires.**

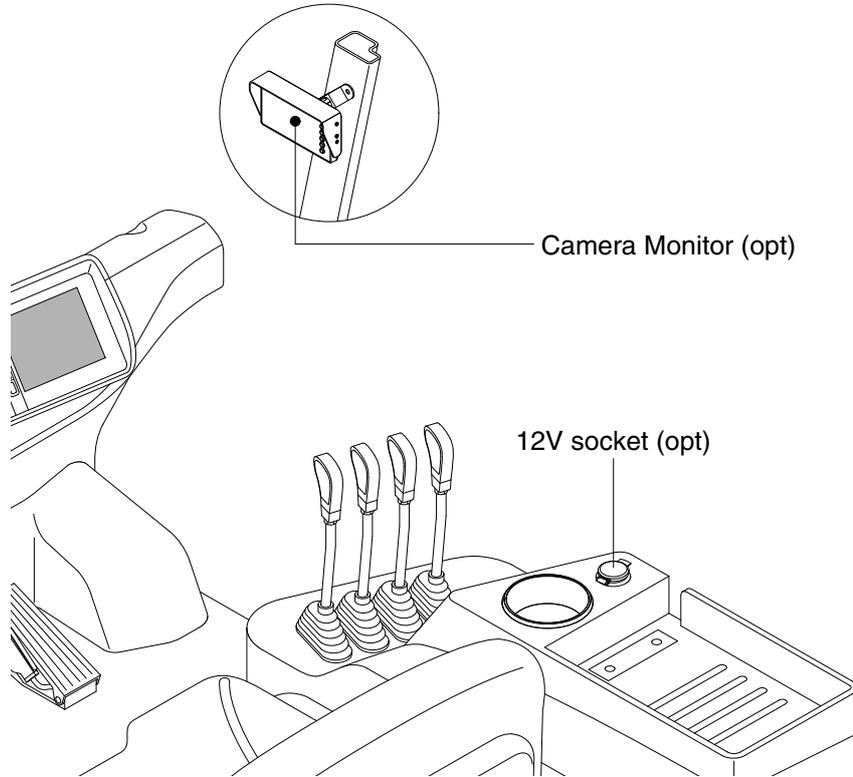
If your truck uses liquefied petroleum gas (LPG), the fuel is stored in a tank mounted on the truck. A shut-off valve, a safety check valve, a relief valve and a pressure gauge are attached to the tank.

You manually operate the shut-off valve to control the flow of fuel from the tank. You must close this valve when the engine is not running. Close this valve by hand only to a firm tightness. Do not over-tighten.

When you open the shut-off valve before starting the engine, turn the handle slowly : otherwise, the check valve will block fuel-flow for a two to three minute period.

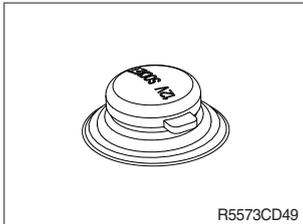
**▲ The tank must lock onto the locator pin before the fastener is secured. This is to make sure that the relief valve is in the proper orientation.**

## 8. OTHERS



25LC93KY09

### 1) 12V SOCKET (option)



(1) Utilize the power of 12 V as your need and do not exceed power of 12 V, 120 W.

## 2) MONITOR (OPTION)

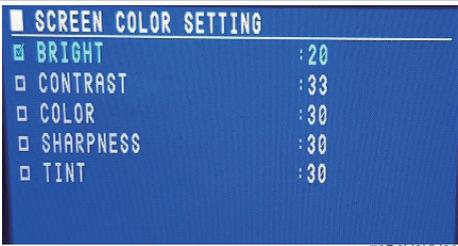
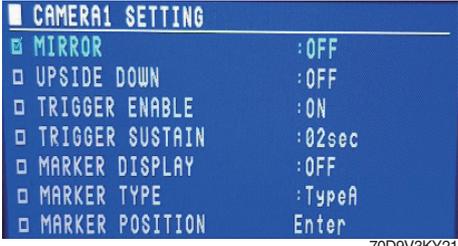
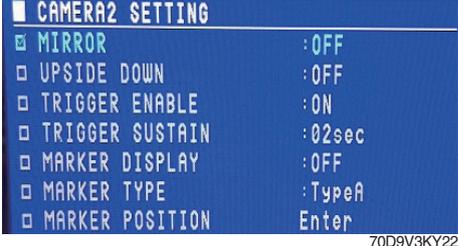
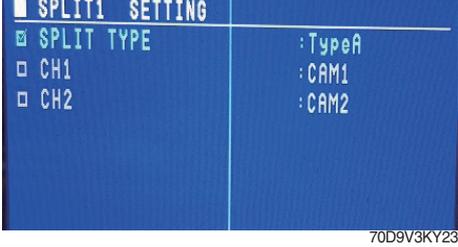
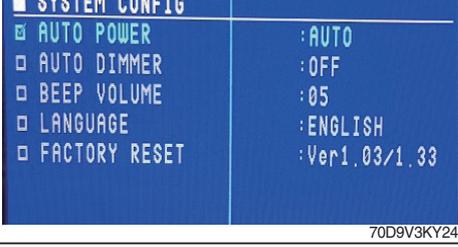
It is possible to adjust the angle to the up, down, left, or right.



70D9V3KY14

No.	Symbol	Name	Description
1		Power	- Alarm off or off release - Display on or off - Menu save and exit
2		Select	- Parking line on or off - Select the menu - Adjust the menu
3		Menu	- Enter and change the menu - Adjust the parking line (press the button for 2 seconds.)
4		Up	- Return the previous display - Maximum volume or alarm off release (press the button for long time) - Move or adjust upward
5		Down	- Move the next display - Mute volume (press the button for long time) - Move or adjust downward

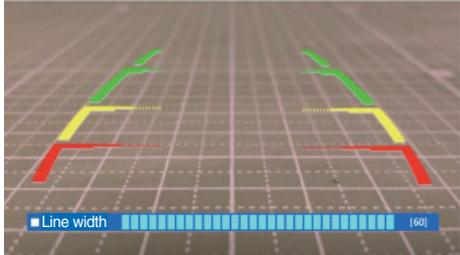
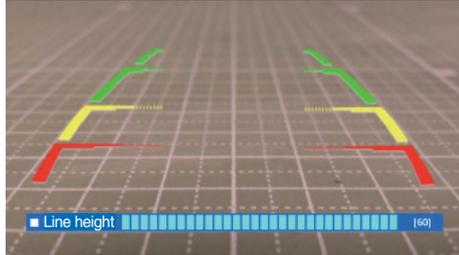
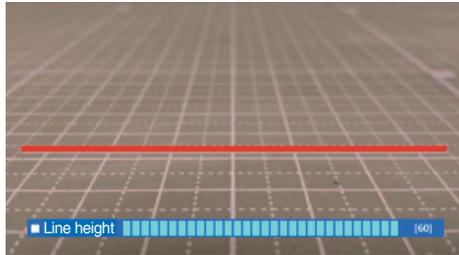
## (1) Menu function

No.	Menu	Display	Setting value
1	Screen color setting	 <p>70D9V3KY20</p>	<ul style="list-style-type: none"> <li>- Bright : 0 ~ 60 (1 step)</li> <li>- Contrast : 0 ~ 60 (1 step)</li> <li>- Color : 0 ~ 60 (1 step)</li> <li>- Sharpness : 0 ~ 60 (1 step)</li> <li>- Tint : 0 ~ 60 (1 step)</li> </ul>
2	Camera 1 setting	 <p>70D9V3KY21</p>	<ul style="list-style-type: none"> <li>- Mirror : on or off</li> <li>- Upside down : on or off</li> <li>- Trigger enable : on or off</li> <li>- Trigger sustain : 1 ~ 20 seconds (1 second)</li> <li>- Marker display : on or off</li> <li>- Marker type : type A or B</li> <li>- Marker position : enter</li> </ul>
3	Camera 2 setting	 <p>70D9V3KY22</p>	<ul style="list-style-type: none"> <li>- Mirror : on or off</li> <li>- Upside down : on or off</li> <li>- Trigger enable : on or off</li> <li>- Trigger sustain : 1 ~ 20 seconds (1 second)</li> <li>- Marker display : on or off</li> <li>- Marker type : type A or B</li> <li>- Marker position : enter</li> </ul>
4	Split 1 setting	 <p>70D9V3KY23</p>	<ul style="list-style-type: none"> <li>- Split type : type A or B</li> <li>- CH 1 : cam 1 or 2</li> <li>- CH 2 : cam 1 or 2</li> </ul>
5	System config	 <p>70D9V3KY24</p>	<ul style="list-style-type: none"> <li>- Auto power : on, off or auto</li> <li>- Auto dimmer : on or off</li> <li>- Beep volume : 0 ~ 10 (1 step)</li> <li>- Language : english or korean</li> <li>- Factory reset : Ver 1.xx</li> </ul>

**(2) Parking line adjusting**

Press the menu button for 2 seconds or enter the marker position in the camera 1 setting menu or the camera 2 setting menu.

※ To set the marker position, the marker display should be ON in the camera 1 setting menu or the camera 2 setting menu.

No.	Type	Display	
1	A	 <p style="text-align: right; font-size: small;">70D9V3KY25K</p>	 <p style="text-align: right; font-size: small;">70D9V3KY26K</p>
2	B	 <p style="text-align: right; font-size: small;">70D9V3KY27K</p>	